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Third Meeting of Intergovernmental Committee of Experts on Chemicals for Eastern and Southern Africa

Addis Ababa, 17 to 21 October 1983

Second Meeting of the Eastern and Southern Africa Steel Development Committee,

and

Second Meeting of the Intergovernmental Committee of Experts on Engineering Industries

Addis Ababa, 24 to 28 October 1983

INITIAL INTEGRATED INDUSTRIAL DEVELOPMENT PROGRAMME FOR EASTERN AND SOUTHERN AFRICA

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INTRODUCTION

1. The protocol on industrial cooperation established by Article 11 of the Treaty for the establishment of the Preferential Trade Area for Eastern and Southern African States (PTA) calls for the development including cooperation for the development of large-scale capital and intermediate goods industries, food and agricultural industries and other consumer goods industries for the purpose of obtaining economies of scale, reducing external dependence for the supply of industrial products and achieving greater complementarity of the economies of the member States. Furthermore, the protocol reiterated the progressive creation of methods of co-operation, such as the establishment of multinational enterprises as well as joint industrial supporting institutions and other infrastructural facilities the promotion and joint development of industrial research, skills and modern technology 1/

CHAPTER I

INDUSTRIAL AREAS OFFERING SCOPE FOR MULTINATIONAL INDUSTRIES

A. LAGOS PLAN OF ACTION AND IDDA INDUSTRIAL PRIORITIES 2/

2. The Industrial Development Decade Programme (IDDA) has identified the major priority industrial sub-sectors and areas which can constitute a sound industrial base for Collective industrialization. Therefore, it is important to establish in African subregions as a whole and in Eastern and Southern African in particular, the basic industries which can be developed in the short and in the long-run.

(a) Short-term up to the year 1985

3. In establishing priority industrial activities, particularly basic industries, member States of the subregion should lay the foundation for phased development, in the short-term, of basic industries which are essential for self-reliance, since these industries produce inputs for other sectors.

4. To facilitate the development of basic industries member States of the subregion should conduct studies and work out modalities for the creation of such industries. The industries identified are food and agriculture, transport and communications, building and construction, mechanical, metallurgical, engineering and chemical industries, forest and energy industries.

5. It is expected that up to the year 1985, African as a whole and the subregion in particular would demonstrate their will to cooperate by initiating and integrating multinational core industrial projects in the priority subsectors and formulating detailed detailed integrated programmes for their implementation during the second phase of the IDDA.

1/ Treaty for the establishment of the Preferential Trade Area for Eastern and Southern African States, Article 24, Protocol on Cooperation in the field of Industrial Development.

2/ OAU: Lagos Plan of Action for the Economic Development of Africa (1980-2000).

(b) Medium-term up to the Year 1990

6. The Medium-term of the LPA and second phase of the IDDA should be devoted to the implementation of industrial multinational projects in the subregion. This implementation phase should aim at the following: the creation of a solid base for self-sustained industrialization, the development of human resource, the production in sufficient quantities of agricultural inputs such as fertilizers, pesticides, agricultural tools and machines, and also of sufficient quantities of building materials and the development of the intermediate and capital goods industries, particularly those intended for other industries.

7. It is expected that during this period the Eastern and Southern African sub-region be in the position to carry out on the spot processing and upgrading of an increasingly large portion of the sub-region's raw materials, the satisfaction of industry's energy needs by the development of the different forms of energy available in the sub-region and the satisfaction of the transport, and communications requirements.

(c) Long-term up to the Year 2000

8. In implementing the long-term development strategy up to the year 2000 in the Eastern and Southern African subregion, emphasis should be put on the need to establish links between industry and other sectors as well as between various industrial sub-sectors, so as to promote interdependence among them and achieve harmonised industrialization and thus achieve a balanced over-all economic development. As it is virtually impossible for any single country or group of countries in the subregion to produce all the capital, intermediate and consumer goods required by the economy particularly within the relatively short time up to the year 2000, a country or group of countries with complementary resources will need to identify resource-based core industries that would give a set of clear comparative advantages. These industries could also serve as an industrial base or have effective linkages with other industries within economic activities that could contribute immensely to reducing heavy reliance of the subregion on external factor inputs. These industries should have the capability to earn foreign exchange which can then be used in developing other sectors of the economy.

9. In formulating their programme of core industries up to the year 2000, the member States of the subregion should bear in mind that any industrial subsector has a number of core industries, depending of course on the intended impact of the industry on the economy. Example of resource-based core industries are production of sugar, textile, wood, iron and steel, fertilizers, pharmaceutical, forest products, building materials, etc.. Emphasis should also be put on the need to select appropriate technology which should also be culturally suitable and compatible with resource endowment.

B. THE NECESSITY FOR SELECTION OF INDUSTRIAL BRANCHES OF LIMITED PRODUCTS AND PRODUCTS GROUPS FOR CONCENTRATION OF EFFORTS AND SERVICES

10. The successful implementation of the IDDA will depend firstly on the correct identification and selection of core industries and core projects 3/. Branches with maximum impact will need to be selected as this would ensure that the subregion will be able to excel in developing a clear advantage in the product lines of its concentration and act as a catalyst of growth to other sectors.

3/ Guidelines for initiating priority actions at the national and sub-regional levels (1982-1984) for the implementation of IDDA, ECA/FCIA.7/INR/WP/3.

(a) Core industries

(i) Concept of Core industries

11. The concept of the core and the approach to industrial development by means of establishing core industries have been proposed as a basis for accelerated industrial development during the Decade and thereafter. There are basically two kinds of core industries: the resource-based core industries, and engineering-based core industries. The resource-based core industries are those industries which among other things depend primarily on the exploitation, processing and utilization of a country's or subregion's resources including the production of final products. Once these industries are established they have significant forward/backward linkage effects on other industries and economic sectors and capable of generating foreign exchange. The product groups of such industries offer a wide scope for development of specific branches of technology, allow for the possibility of establishing a sub-system of complimentary production units and provide scope for development of the machinery and equipment required for manufacturing the product groups. Examples of these industries are: those processing agricultural, food crop commodities and fibres, livestock and other animal resources, forest resources, non-ferrous and ferrous ores, organic and non-organic chemical raw materials.

12. Since the engineering-based core industries provide inputs to numerous resource-based core industries, the Seventh Meeting of the Follow-up Committee on Industrialization in Africa, held from 16-19 March 1983 in Kigali, Rwanda concluded that in the first phase of IDDA the "Member States should concentrate resources on core engineering industries and at least one resource-based core industry" 4/.

(ii) National core industries, engineering and resource based

13. The engineering core industries for the manufacture of capital goods for servicing both industry and other priority sectors (e.g. agriculture, transport and communications, mining and energy) in terms of equipment, spare parts and components, repair and maintenance, comprise a combination of any of the following basic support facilities, foundry: forging, heat treatment, machine shop, tool room, fabrication shop, and metal coating. In fact requirements for the basic support facilities range from a single foundry for casting, such as manholes, to a combination of at least foundry, forging, heat treatment and machine shop for more sophisticated products, particularly spare parts and components and other products.

14. While development of the engineering industry depends on its own activities, it also ultimately depends on the activities of metal and chemical industries, which are resource-based, for production of tools, implements and capital goods.

4/ Report of the Seventh Meeting of the Follow-up Committee (of the Whole) on Industrialization in Africa, Kigali (Rwanda) 1983.

(iii) Subregional core, engineering and resource-based

15. At the multinational and subregional levels, there is room for multinational engineering core units for the manufacture of parts and components, agricultural machinery and equipment, transport and communication equipment, that are beyond the capacity of a single country, in the subregion either in terms of complementary factor inputs or market size. Where existing national facilities are under-utilized and or where large-scale capacity is a basic requirement for economy and is beyond the scope of national capabilities and markets, then the countries should identify engineering core projects which should be implemented at multinational or subregional levels.

16. Regarding resource-based core industries, they should be identified and selected on the basis of and availability of natural resources, and other raw material inputs in a group of countries within the subregion.

(iv) Emphasis on core industries providing inputs to agriculture and transport

17. In accordance with the LPA and the Programme for the IDDA, industries providing inputs to agriculture and transportation sectors should be identified as priorities among priorities. These relate to agricultural machinery, implements, equipment, expecially metal tools, food processing and storage equipment, transport equipment to convey agricultural inputs and products related spare parts and components and metals for their manufacture as well as fertilizers, pesticides and pharmaceuticals.

C. MODALITIES FOR IDENTIFICATION AND SELECTION OF PROJECTS

(a) By Governments

18. It is expected that each country will organize a national workshop to appraise natural resources, to review and identify national and multinational core projects and to assess domestic capacities and capabilities.

19. Such modalities will enable the Governments of these countries to identify and select new projects and modify existing projects arising from inter and intra-sectoral inputs and outputs. In carrying out such an exercise, it is recommended that the terms and conditions of contracts of foreign investors be re-examined, since left to themselves, they might channel their investments to projects which are inconsistent with or even adverse to the core strategy. In particular, attention should be drawn to the need to review the terms and conditions of contracts governing the supply of equipment, spare parts, licences and technological know-how in order to facilitate the establishment of core industries.

(b) By inter-governmental organizations

20 The proposed Subregional Committee for the implementation of the Programme of IDDA to be established should organize subregional workshops to initiate the integration of multinational projects derived from or identified and selected at the national workshops and those prepared by subregional intergovernmental organizations, including the Lusaka-based MULPOC.

(c) Selection of minimum package of projects taking into account resources and capabilities

21. The selection of a country's minimum package of projects, means that a country h a reference framework for determining and mobilizing the support factors and capabilities such as manpower, training, technology, R and D, entrepreneurship, finance, organizational mechanisms including feedback activities. If a country's identified and selected project is partially supported by its internal resources, finance, market and/or other factors and relies substantially on external support then such a "national" project should be classified as a project reserved for multinational co-operation.

D. LINKING SELECTED MULTINATIONAL PROJECTS AT THE SUBREGIONAL AND NATIONAL LEVELS

22. The Lagos Plan of Action recognizes the need to establish an industrial base whi would ensure the integration of the whole econony by establishing effective mutual linkages between industry and other sectors in terms of producing inputs for other sectors and for infrastructure.

23. In the case of the resource-based industries, if groups of countries happen to have a similar or complementary resources, they would join forces to exploit their comparative advantages.

24. As far as the engineering-based industries are concerned, the selected multinati projects at the subregional and national levels will be connected with foundry, forging, heat treatment, machine shop, tool room, fabrication shop and metal coating facilities. At the current level of industrial development in the African Subregions, the major outputs of the core engineering industry would include tools, agriculture tools/implements as well as equipment for transport communications and energy. In the case of food and agriculture, the output of the core engineering projects would include: (i) hand tools, (ii) manually operated equipment, (iii) animal-drawn equipment, (iv) tractor-drawn equipment, and (v) irrigation equipment as well as food processing and storage equipment.

25. The requirements of the transport and communications sectors from the engineerin core projects include: trucks, buses, bicycles, rails, wagons, multipurpose transport equipment, railway wagons, truck and tractor engines and spare parts for maintenance, as well as telephones and radio receivers.

CHAPTER II

INTEGRATED INDUSTRIAL INVESTMENT PROGRAMME

A. SCREENING MULTINATIONAL PROJECTS FOR INTEGRATION

(a) Basis for identifying project ideas

26. Most of the project ideas identified under each industrial subsector were selected mainly for their potential contribution to increased productivity in food production and processing, an area accorded the highest priority in the Lagos Plan of Action. Such projects include those which provide inputs to agriculture and process agricultural products.

27. Most chemical products are directly related to the satisfaction of basic needs, the most essential being food and health. Project ideas for the chemical industry are aimed at ensuring the availability and supply of basic chemical products at a reasonable price. Project ideas are based on the local production of essential chemicals based on raw materials and resources available within the Eastern and Southern African subregion such as natural gas, coal, phosphate rock, potash, salt, limestone, renewable biomas materials and electrical energy.

28. Engineering industries are essential to the ensuring of availability and supply of machinery, equipment and spare parts for all sectors of the economy as well as to the providing of repair and maintenance services to all the sectors of the economy. Project ideas have been selected to reflect the need for core engineering industries and peripheral engineering industries. Core engineering industries projects will facilitate the creation of an industrial base for production and manufacture of machinery, equipment and spare parts. Peripheral engineering industries projects will provide services to the subsectors.

29. Metallurgical industries are linked up-stream to raw materials processing industries and down-stream to metalworking and engineering industries. Metallurgical products are consumed by construction, transport, communications, machinery and equipment production industries and virtually by all heavy industries which are the basic requirements for industrialization.

30. Project ideas for the building materials and construction industries are based on the fact that links between consumption, production and construction demonstrate that economic growth and social equality are dependent on construction. This activity is a powerful stimulator of social growth and well-being covering a wide range of economic interests such as infrastructure, equipment, services, repair and maintenance of physical facilities.

(b) Criteria for selecting multinational projects

31. In order for an industrial project to qualify as a multinational or subregional core project, it should meet all the following basic criteria and should pass one or two tests concerning comparative advantage:

(i) Provides effective integration and linkages with other industries and with other economic activities and infrastructures;

(ii) Utilizes and upgrades, to the maximum extent possible, local natural resources (raw materials and energy) for the benefit of the subregion followed by other African countries and then by non-African countries;

(iii) Produces intermediates such or engineering parts and components for further processing or fabricating in an increasing number of industries established and to be established in member States of the subregion, particularly those related, to food production and processing, building materials, textiles and energy, transport and mining;

(iv) Caters, first and foremost, directly or indirectly, to the basic needs of the peoples of the member States concerned and, if required, of non-member African countries;

(v) Involves economies of scales, complex technology, huge investment and market that is beyond the reach of individual member States; and

(vi) Offers scope for co-operation in long-term supply/purchase/arrangements for raw materials, intermediates, and final products, sub-contracting, equity share holding foreign exchange transactions, etc..

(c) Potential comparative advantage

32. Projects which have been identified and now being proposed for implementation under the Industrial Development Decade Programme for Africa in the Eastern and Southern African Subregion will need to be screened for the purpose of ranking them in their order of implementation as well as for the purpose of allocating them resources at national and multinational levels.

33. The following requirements will be used as a basis for assessing comparative advantage:

(i) Offers comparative advantages in comparison to similar project(s) - actual or potential - in other countries (African and non-African), particularly in raw materials and energy and the required infrastructure;

(ii) Complements related projects or existing production unit(s) in the country and in the subregion;

(iii) Contributes to reducing the regions heavy reliance on external factor inputs;

(iv) Earns foreign exchange through the export of its semi and/or final products including processed raw materials, intermediates and by-products;

(v) Results in rehabilitation and rationalization of existing production unit(s) unit(s); and

(vi) Substitutes, when practical, synthetic materials by natural materials, particularly those that are renewable.

B. PROJECT PROFILES

34. The projects covered by project profiles were selected mainly for their potential contribution to increased productivity and their potential to change the existing structure of industrial activities with a view to bringing about rapid and self-supporting industrialization. These projects are either resource-based priority industries or core industries that have a multiplifier effect and maximum linkage to other economic sector.

(a) Metal industries

35. The following projects proposed in the metallurgical sector are a continuation of the activities undertaken in response to the decision of the third Meeting of the Council of Ministers of the Lusaka-based MULPOC held in Gaborone, Botswana 28-29 January 1980, which led to the formation of an Eastern and Southern African Steel Development Committee (ESASDC) as an institutional mechanism for promoting the subregional development of the metallurgical sector.

(i) Development of the Iron and Steel Industry in Eastern and Southern Africa

36. On the basis of the recommendations of the first Meeting of the Eastern and Southern African Steel Development Committee (ESASDC) held at Kedcliff, Zimbabwe, 8-11 November 1982 the Sixth Meeting of the Council of Ministers of the Lusaka-based[5/] MULPOC held in Mbabane, Swaziland, 14-16 February 1983 approved the following projects:

(i) Upgrading and diversification of products from ZISCOSTEEL, Kedcliff, Zimbabwe, to meet the present subregional market for iron and steel products (pig iron, billets, and finished products)

(ii) Expansion of existing and development of new electric arc furnace steelmaking plants based on available scrap and sponge iron to be made available within the subregion to meet the crude steel requirements of the subregion up to the year 2000.

(iii) Construction of direct reduction plants to produce sponge iron in Angola and Mozambique to meet the subregional demand for sponge iron (to supplement local scrap) up to the year 2000.

(iv) Integration of electric arc furnace steel plants with rolling mills to iron making units in countries of the subregion where demand will have reached a high enough level to justify integration.

37. The project has two components. The first component is the short-term option(1980-1990) involving the production of 1.97 million tons of crude steel for countries which do not possess one or more of the basic iron and steel industry raw materials and those without re-rolling mills. In this option ZISCOSTEEL has a major role as a supplier of finished products. The second component is the long-term option involving the production of an additional 2.5 million tons by the year 2000 with backward integration of existing steel processing facilities to primary conversion units in the subregion.

5/ All the investment figures quoted below are in US$ at 1982 constant price.

38. For the short term option investment funds required are estimated at US$ 405 million. This corresponds to the investment required for the expansion of the ZISCOSTEEL plant. Operating costs of the ZISCOSTEEL plant, at the moment, is US$ 140 million/year. This will increase by US$ 28 million/year after the expansion.

39. For the long-term option, the subregional investment for the two million tons/year in 1990 will be US$ 3.5 billion and US$ 4.5 billion for the additional 2.5 million tons needed to bring the crude steel output to 4.5 million tons in the year 2000. Over this period a total of US$ 8 billion will be required to achieve the production of 4.5 million tons of steel by the year 2000.

40. Total manpower requirements will be about 9,000 in 1990 and 20,000 in the year 2000.

(ii) Direct Reduction Plant in Angola

41. The Angolan iron and steel project involves four phases. The first phase relates to the rehabilitation of the existing steel plant. The second phase aims at the production of pellets for export the third phase aims at the production of sponge iron. The final stage involves the expansion of the existing crude steel and rolling capacities by installation of new facilities for steel making and a new rolling mill raising the output from the existing 10,000 to 300,000 tonnes of rolled products.

42. The table below summarizes the fixed capital investment for all the phases of the project.

Table 1: Investments for the Angolan Iron and Steel Project

Production Facilities	Investment (million at 1982 prices US$)
Mine and pelletizing plant	326
Direct reduction plant	194
Electric arc furnace and rolling mill	120
Total	640

Source: Angolan Country Position Paper at the First Meeting of ESASDC held at Redcliff, Zimbabwe, 8-11 November 1982.

43. The mine is expected to employ 600 people. The pelletizing complex including the lime plant, auxiliary facilities and harbour will employ 400 people. An additional 200 persons will be employed at the steel plant and rolling mill which already employs 400 people. The total number of people to be trained will be 1,200.

(iii) Direct Reduction Plant in Mozambique

44. The proposed iron and steel project comprises: mining, direct reduction, electric steelmaking, continuous casting and a rolling mill. The initial planned capacity of the plant is 200,000 tons/year crude-steel to be expanded to 400,000 tons/year by 1990, when an integrated direct reduction plant with a capacity of 2 million tons of sponge iron is planned. The project is expected to cost about US$ 3 billion.

(iv) Copper fabrication plant for Eastern and Southern Africa

45. The project is based on a projected subregional demand for overhead conductors and underground cables estimated at 50,000 tons/year in 199 and 125,000 tons/year by the year 2000.

(j) Engineering industries

46. The development of the engineering sub-sector (metal working, electro-mechanical, machine building, etc. industries) is envisaged to provide capital goods to other sectors of the economy in the subregion.

47. A subregional Committee on engineering industries has been established as an institutional mechanism for promoting the development of this sector in the subregion. The following projects are mostly a result of the decision of the Sixth meeting of the Council of Ministers of the Lusaka MULPOC held in Mbabane, Swaziland, 14-16 February 1983. The decision was based on recommendations of the Intergovernmental Committee of experts on engineering industries in Eastern and Southern Africa held at Kadoliff, Zimbabwe 8-11 November 1983.

(i) Low-cost standard multi purpose rural vehicles

48. The project involves the manufacture of 500,000 units/year of scooter engines in two plants, manufacture of 300,000 units/year of three-wheel scooter chassis in two plants and manufacture of 200,000 units/year of moped engines and transmission systems for assembly in national plants. This project will require a total investment of about US$82.5 million. Total manpower is estimated at 6,250.

49. This project will require at national level ancillary industries for the manufacture of parts and components such as tyres, wheels, rims, brake shoes, and electrical accessories. Investments for ancillary industries will be in range of US$5-20 million.

(ii) Manufacture of diesel engines for tractors, trucks, lorries and buses

50. This project aims at the manufacture of 30,000 to 90,000 engines/year. The actual production figure will depend on the number of shifts. Investment is estimated at US$ 80 million. Total manpower is estimated at 3,000.

(iii) Manufacture of engine-mounted haulage and passenger chassis for lorries, trucks and buses

51. This project aims at the manufacture of 95,000 units/year in 199 and 205,000 units/year by the year 2000. Production activities will be carried out in three subregional plants. Investment is estimated at US$20 million per production unit. Each unit will require a total labour force of 2,000 employees.

(iv) Manufacture of Agricultural machinery and equipment

52. The project aims at the production of four-wheeled diesel engine tractors. 15,200 tractors/year are planned for 199 and 32,000 tractors/year by the year 2000. Investment over the period up to the year 2000 is estimated at US$20 million. The labour force is estimated at 1,600 employees. This project will be served by the same national ancillary industries mentioned above, and does not include the manufacture of engines. These will be supplies by the project (ii) above.

53. (v) Manufacture of power generation transmission and distribution equipment

53. Due to the vastness and varied nature of the products, this project has been split into four phases. Phase I, 1984-1985, manufacture of steel towers and accessories phase II, 1985-1987, manufacture of (i) small generators and (ii) distribution transformers; phase III, 1986-1988, manufacture of (i) medium power transformers and (ii) aluminium and copper conductors; phase IV, 1988-1992, manufacture of large power transformers and phase V, 1995-2000, manufacture of large turbines and generators. The investments range from approximately US$ 1 million to US$ 200 million.

(c) Chemical Industries

54. As a result of the decision of the fourth Meeting of the Council of Ministers of the Lusaka-based MULPOC held in Maseru, Lesotho, January 1981, the Intergovernmental Committee of Experts on Chemicals for Eastern and Southern Africa was established. The following projects are a result of recommendations made by this committee to the Sixth Meeting of the Council of Ministers of the Lusaka-based MULPOC held in Mbabane, Swaziland, 14-16 February 1983.

(i) Ethiopian Potash

55. Potash deposits in Ethiopia were discovered first in 1911. An Italian company which was given mining rights in 1916 produced up to 70,000 tpy of potash in Ethiopia. The company was in production, up to 1929. An American company called Ralph H. Parsons, then held a concession in the area. It went as far as sinking a shaft. It also made a survey of the requirements for transport, harbour and other infrastructural facilities. However, in March 1967 the potash mine was accidentally flooded and the mining operations ceased. The firm withdraw from the project in April 1968 and surrendered the concession.

56. In the second half of 1971, the Ethiopian Government invited another company, the United Development Co. of Israel to make a fresh technical and economic evaluation of the project. The company submitted a techno-economic report which made estimates of capital investment required to develop the deposit and market the potash.

57. More recently, a market feasibility study for the potash was carried out by ECA. Since the conclusions of the study were encouraging, the Ethiopian Government requested a consulting firm to undertake a feasibility study. The Government welcomes African countries' participation in the project. In this connexion, the Sixth Meeting of the Lusaka-based MULPOC Council of Ministers (February 1983) has requested the Government to undertake follow-up activities including contacting Governments of member States in respect of their participation in the venture.

(ii) Tanzania Multinational Ammonia/Urea Project

58. Reserves of natural gas were discovered in 1974 about 6 km offshore from Songo Songo Island during a World Bank sponsored drilling programme and so far indications from wells already sunk are said to be good. The government of Tanzania has approved further offshore drilling programmes, placing much hope in a simultaneous discovery of oil.

59. The discovery of the natural gas encouraged the government to plan the construction of an ammonia/Urea complex at Kilwa-Masoko. Agrico chemical of the USA with the Tanzania Petroleum Development Corporation will jointly undertake the constructions of facilities to produce 1,150 ton/day ammonia and 1,750 ton/day of urea. The facility will be erected in a purpose built hollow concrete platform that can be carried on board ship as deck cargo, then floated off and into place at the proposed site in Tanzania. The Tanzanian Government welcomes African participation (23 per cent of the equity) in the project. A request similar to that addressed to the Ethiopian Government on the potash project was made to the Tanzanian Government in respect of the ammonia/urea project.

(iii) Uganda phosphate industry

60. Sukulu Hills phosphate deposits were first discovered in 1939 but not exploited until 1963 when a small plant was completed with 25,000 ton/year capacity of single superphosphate (SSP). However, this plant and a sulphuric acid plant to which it was linked have been closed. At the moment a feasibility study (funded by the World Bank) is being undertaken.

(iv) Zimbabwe phosphate fertilizer industry

61. The phosphate deposit at Dorowa was discovered by F.F. Mennell in 1937. Mennell in conjunction with Anglo American corporation drilled the deposit and determined in 1952 that the reserve was capable of supporting a domestic fertilizer industry. In 1956, African Explosives and Chemical Industries Rhodesia Ltd. (AE & EI) embarked on the construction of a Z$ 7.5 million superphosphate factory at Msasa near Harare. The fertilizer plant opened in 1958 but was based on imported phosphate rock. In 1964 AE & CI decided to proceed with the exploitation of the phosphate deposit at Dorowa and in 1964 construction began on the Z$ 2.4 million project.

62. Production began in the following year and by November 1965, the mine was being operated at full capacity by AE & CI's operating subsidiary, Dorowa Minerals Ltd. In 1973 the operation was expanded by more than 50 per cent to its present day capacity of 180,000 tpa of phosphate concentrates won from maximum throughput of some 1.7 million tpa of phosphate ore.

(v) Tanzania phosphate industry

63. Beginning this year, the existing fertilizer plant in Tanzania has started to use local phosphate rock. Due to very high cost of energy and low mine capacity utilization arising from small local demand, phosphate rock cost FOB Targa is relatively high. Phosphate rock price is likely to be competitive with increasing mine capacity. This can be achieved if other member States would co-operate with Tanzania in exploiting the 10 million ton phosphate reserve.

(d) Agro-Food Industries

(i) Subregional Research, Development and Training Centre (RDTC) on cereals, root crops and the processing technology

64. At its fifth meeting held in Lusaka in March 1982, the MULPOC Council of Ministers for Eastern and Southern Africa endorsed the progress made on composite flour development programmes and adopted resolution "III Industries" (ECA/MULPOC/Lusaka V/5) Section C regarding Serere Research Station being converted into subregional institution for research and development of composite flour from sorghum, millet and other cereals and cassava which grow well in the subregion and could reduce dependence on imported wheat.

65.

65. ECA then fielded a two-man, two-week mission to Uganda (November 1982) to study the feasibility of converting the station into a subregional institute. The mission found the proposal feasible and drew up project proposals for submission to the Afro-Arab Secretariat and the United Nations Trust Fund for African Development. These proposals were presented to the Sixth meeting of the Council of Ministers of the Lusaka based MULPOC, held in Mbabane Mbabane, Swaziland during 14-16 February 1983. During this meeting the Council of Ministers took note of the report and agree that:

- During phase I, the Government of Uganda should expand Serere Research Station to include a food processing component in 1983.

- During phase II, the resources required to convert Serere Research Station into a subregional centre, estimated at US$1,095,000 for five years, should be mobilized and ECA should intensify its efforts to secure external funding.

66. Furthermore, in order to strengthen the case of mobilization of assistance from external sources the Council of Ministers passed a resolution on funding the conversion of Serere Research Station into a subregional centre (resolution I) ECA/MULPOC/LUSAKA/VII/B.

67. In order to involve participating countries in the funding of the project. ECA is drafting a legal instrument (constitution) for the signature of member States.

C. ADDITIONAL MULTINATIONAL PROJECTS IDENTIFIED TO SUPPLEMENT THE INTEGRATION PROCESS

68. In order for project ideas identified above to become realities, they will require a simultaneous development of infrastructure, supporting services and ancillary industries at national and multinational levels.

(a) Infrastructure

69. Most of the projects proposed require a simultaneous establishment and maintenance of physical infrastructure such as roads, ports, electrical and water supply as well as social infrastructure such as workers housing and social amenities for the population associated with these industries. In most of the countries of the subregion, this infrastructure is either inadequate or exists in a rudimentary stage at the potential sites of the proposed projects. If these industries are made to meet the cost of infrastructure, the capital outlay for the industries will rise substantially. Measures will need to be taken well in advance of these projects so that infrastructure is developed as part of the overall social economic development. The required infrastructural projects will need multinational co-operation.

(b) Other multinational projects

70. Resource based industries such as metallurgical and chemical industries will require a multinational programme for raw materials development. This programme will include the development of mines and mineral processing facilities at a multinational level.

71. In the case of engineering industries, ancillary industries such as consulting and engineering services, foundry, forging and heat treatment facilities will be required at national and multinational levels.

CHAPTER III

CONCLUSIONS AND RECOMMENDATIONS ON ACTIVITIES RELATED TO THE IMPLEMENTATION OF THE PROGRAMME

72. A number of activities have to be undertaken in the implementation of the programme or in support thereof. The following is a minimum package of such activities, some of which are to be carried out by the governments while others have to be initiated by the ECA/OAU/UNIDO Secretariats.

A. ACTIVITIES BY THE GOVERNMENTS

(a) Endorsement of and agreements on the programme

73. The programme that is being proposed is based on the recommendations of the IDDA and the LPA. As such it needs first and foremost to be adhered to and accepted by the governments in the subregion since the responsibility for the development and implementation of the Decade and the Plan lies largely with the African countries themselves.

74. This acceptance would have to be concretized through the incorporation of projects of the programme in the national and subregional plans as well as allocation of resources to implement such projects. Where industrial plans, and programmes are already well established, they would need to be adjusted, so as to facilitate the immediate implementation of some core projects. There could very well be a need for some existing governemental machinery and subregional institutions to be reviewed and restructured.

75. Once the programme has been endorsed, an important step towards its implementation would be for the governments to agree on main principles and modalities for implementation. This implies the establishment and entering of intergovernmental collaboration agreements which would determine clearly the rights and obligations of each participating country in respect of basic issues such as financing, market sharing, location of the project, choice of technology, training, and utilization of the output, etc. The negotiation and conclusion of such agreements would take place as a result of a process which involves among other things the organization of technical consultative meetings.

(b) Organization of technical consultative meetings

76. Such meetings are a prerequisite to and will provide a forum for preparatory work and the conclusion of negotiated agreements on the implementation of the programme. This work involves an extensive exchange of information on each partner's capabilities, capacities and resources and the working-out of modalities for co-operation for the implementation of the programme.

77. Regarding the exchange of information, it would be among other things on the raw materials, agricultural, mineral and other resources available in each country, the production of capital, intermediate and consumer goods, the market size, the availability of facilities, utilities and infrastructure, industrial manpower, legislation and regulations concerning foreign investment and related incentives, legislation on patent, trade marks, designs, etc.

78. The modalities for co-operation in implementing the programme would include the mobilization of domestic and external investment finance, equity participation, long-term purchase agreements, exchange transactions, subcontracting, joint negotiations for finance and technology, organization of joint R and D, collaboration in manpower training, etc..

79. The participating member States could also place the possibility of co-operating in removing the major obstacles that are likely to hinder the implementation of the programme. These include the impact of the operation of transnational corporations.

80. The technical consultative meetings could be organized within the framework of existing subregional organizations with the assistance of the ECA/OAU/UNIDO secretariats. It is recommended to hold the meetings at the highest possible levels in order to maximize their expected output.

(c) Undertaking pre-investment studies and activities with the involvement of potential collaborators (indigenous and foreign)

81. Once the programme is approved, there will be a need to establish, even if only on a preliminary basis, the viability of the projects retained therein. The consultancy organizations to be entrusted with the task of undertaking the necessary pre-investment studies must be selected carefully with due regard to their commercial reputation and industrial experience. The idea is to avoid any risk of the project being rejected because of poor market study (inadequate coverage of uses and outlets of the product) and because of unavailability of some of the raw material and energy inputs when such inputs can be secured from neighbouring countries. Partly because they may not be reliable or are not well informed of local conditions, foreign consulting firms are likely to promote bad project or kill good ones. The same applies to the choice of potential financial and technical collaborators and investors.

82. In this repsect, participating member States may wish to use, firstly consultancy services available in the subregion or in the African region before resorting to services available elsewhere, particularly in the developed countries.

83. The assistance of regional institutions such as ARCEDEM, ARCT, IDEP, ADB may prove useful. The United Nations Centre on Transnational Corporations which has built up an immense documentation system on these corporations may also provide very valuable information on questionable prospective collaborators and investors.

(d) Creation of subregional/multinational enterprises for those projects or group of projects whose feasibility studies show viability

84. The implementation of viable projects or group of projects from the programme will require appropriate and efficient institutional instruments of action, namely the multi-national industrial enterprises.

85. The participating member States would have to reach multinational co-operation agreements which would delineate the scope and the functions of each such enterprise and lay down the guiding principles and the modalities for its management and operations particularly in areas such as production programme, product lines and product mix, market size and marketing, joint pricing policies, pooling and joint procurement of natural resources and raw materials, promotion of complementarity and specialization in intermediates through sub-contracting, co-contracting and co-production; raising of the capital needed for investment including the organization of investment finance, joint loan guarantees and contracting; intercountry purchase agreements and buy-back arrangements; work force training; technology acquisition, adaptation and development, standardization and quality control, etc..

86. The modalities for the establishment of the multinational industrial enterprises should be flexible and may vary as much as possible so as to meet differing needs, interests and objectives of member States.

87. In order that these modalities may promote effective industrial co-operation among participating member States, they should include or take into account the following:

(i) to use as a starting point existing multinational industrial corporations;

(ii) to make cross-purchase of nominal shares or cross-equity investments or holdings among existing and new national corporations;

(iii) to establish joint affiliates or subsidiaries to render joint or common services;

(iv) to share jointly existing facilities (e.g. maintenance and repair workshops, laboratories, etc.);

(v) to develop market power through inter-corporation supply of raw materials, intermediate inputs, spare parts and auxiliary materials on a long-term contractual basis;

(vi) to make joint purchase arrangements for intermediate inputs, spare parts, machinery, and equipment;

(vii) to form joint marketing agencies and inter-corporation councils for the exchange of ideas and experiences;

(viii) to arrange and practise sub-contracting products, parts, maintenance works, etc.;

(ix) to exchange and retain experts and directorates among national corporations in the region as well as personnel for on-job or in-plant training.

(c) Implementation and operation of viable projects by the multinational enterprises

88. In implementing and operating viable projects entrusted to them the multinational enterprises should aim at meeting the often conflicting objectives of achieving the development goals for which they were established and realizing a minimum rate of commercial viability. This implies among other things that while exercising appropriate supervision through the established machinery the public powers should refrain from untimely and damaging interferences in the day-to-day running of the multinational enterprises as well as imposing too a heavy and unnecessary burden on them.

89. On the other hand, the multinational enterprises should be given the required resources and facilities for their proper and efficient operation. For instance these enterprises would undertake activities in respect of the acquisition of basic raw materials, and intermediate and capital goods, the distribution and marketing of their products, the exploitation of research units within production plants, the development and design of new product choices (multiple product lines) etc..

(f) Undertaking periodic revision and monitoring of the programme

90. Periodic monitoring of the programme, its performance evaluation and the identification of problems with a view to elaborating proposals for remedial actions are a pre-requisite for effectively implementing this programme.

91. Such an exercise presupposes that the objectives of the programme are clearly defined in both quantitative and qualitative terms; that basic data and information are regularly collected analyzed, recorded and made available to policy-makers; and that evaluation reports are prepared and duly acted upon before they become obsolete and the situation deteriorates beyond remedy.

92. The aforegoing requires the development of an appropriate and efficient organizational and administrative structure.

93. The assistance or involvement of the ECA/OAU/UNIDO secretariats as outside collaborators may prove useful in successfully undertaking periodic review, appraisal and revision of the programme.

B. ACTIVITIES BY THE INTERNATIONAL ORGANIZATIONS (ECA, OAU, UNIDO)

(a) Assistance to member States in the development of minimum capacity and capability for implementation of the investment programme

94. The international organizations, especially ECA, OAU and UNIDO, can play an important role in assisting the member States in developing or improving their capabilities and capacity for the implementation of the programme. Such assistance may be mostly required in areas such as:

(i) Organizational capacity:

- setting up arrangements for fostering enterpreneurial capabilities
- creation or strengthening of investment promotion institutions responsible for examining and providing information on investment incentives and projects and monitoring the performance of beneficiary enterprises.

(ii) Consultancy services for prefeasibility and feasibility studies, project design and evaluation, market opportunities;

(iii) Research and training, including basic data collection and dissemination, etc.;

(iv) Advisory services and support for the organization of technical and consultative meetings and negotiation of industrial collaboration arrangements;

(v) Technical assistance and support to indigenous manufacturers, associations especially in core industries;

(vi) Preparation of project profiles and procurement of appropriate technologies, etc..

(b) Collaboration with other UN agencies in support of measures for the implementation of the investment programmes

95. The assistance that ECA, OAU and UNIDO will provide in areas mentioned at above will require the establishment of close liaisons with other UN agencies with a view to securing their support and contribution to the implementation of the programme. In this respect, AGCT, UNCST and UNCTAD could be requested to assist in preparation of technology programmes related to specific core projects. Similarly ILO could contribute in preparing manpower profiles for the same core projects, etc.